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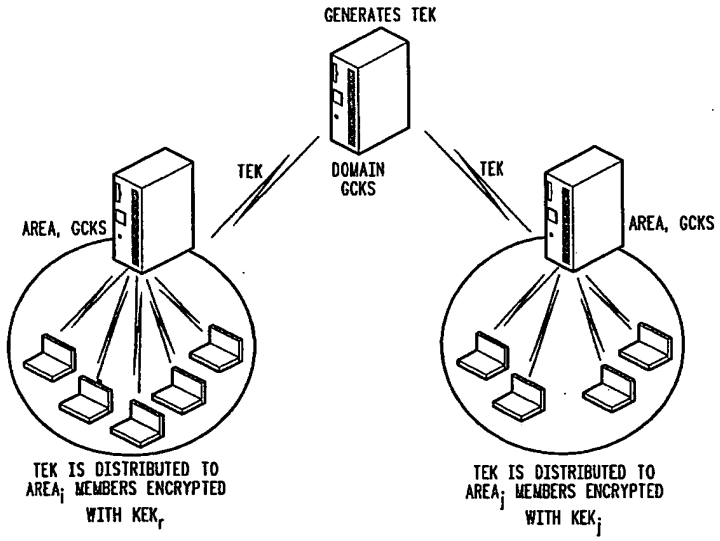
(54) Title: REKEYING IN SECURE MOBILE MULTICAST COMMUNICATIONS



(57) Abstract: A method of inter-area rekeying of encryption keys in secure mobile multicast communications, in which a Domain Group Controller Key Server (Domain GCKS) distributes Traffic Encryption Keys (TEK) to a plurality of local Group Controller Key Servers (local GCKS), and said local Group Controller Key Servers forward said Traffic Encryption Keys, encrypted using Key Encryption Keys (KEKi, KEKj) that are specific to the respective local Group Controller Key Server (local GCKSi, GCKSj), to group members, said local Group Controller Key Servers (GCKSi, GCKSj) constituting Extra Key Owner Lists (EKOLi, EKOLj) for group key management areas (areai, areaj) that distinguish group members (MMi, MMj) possessing Key Encryption Keys (KEKi, KEKj) and situated in the corresponding group key management area (areai, areaj) from group members (MMij) possessing Key Encryption Keys (KEKi) that were situated in the corresponding group key management area (areai) but are visiting another area (areaj).

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